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TECH CENTER 1600/2900

<110> Bonnie L. Bassler
Brendan N. Lilley

<120> LUXO-SIGMA54 INTERACTIONS AND METHODS OF
USE

<130> PUNIV.002A

<140> 09/853,257

<141> 2001-05-10

<150> 60/202,999

<151> 2000-05-10

<160> 19

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<212> DNA

<213> Vibrio harveyi

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<211> 491

<212> PRT

<213> *Vibrio harveyi*

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      35             40             45
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      50             55             60
Ala Ser Glu Ser Ala Asp Lys Ser Ala Asn Glu Ala Asn Asp Ala Ser
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Ser Ser Glu Leu Glu Ile Asp Thr Thr Trp Asp Asp Val Tyr Ser Ala

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<212> DNA

<213> Vibrio harveyi

<400> 3

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<213> Artificial Sequence

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<223> portion of consensus sequence of sigma-54 domains

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<223> Xaa = Trp or Phe

<400> 4

Xaa Phe Pro Gly Asn Val

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<210> 5

<211> 6

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<220>

<223> portion of consensus sequence of sigma-54 domains

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5

<210> 6

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<212> DNA

<213> Artificial Sequence

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<223> upstream primer to amplify rpoN gene

<400> 6

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<210> 7

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> downstream primer to amplify rpoN gene

<400> 7

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21

<210> 8

<211> 25

<212> DNA

<213> Artificial Sequence

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<223> upstream primer used to amplify rpoN gene

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<210> 9

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28

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<211> 222

<212> PRT

<213> V. harveyi

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Phe	Leu	Asp	Glu	Ile	Gly	Asp	Met	Pro	Leu	Asp	Val	Gln	Thr	Arg	Leu		
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	130					135					140				
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<212> PRT

<213> R. leguminosarum

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Val	Arg	Pro	Val	Asn	Leu	Arg	Val	Val	Ala	Ala	Ala	Lys	Ile	Asp	Leu
	130					135					140				
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145					150					155					160
Leu	Asn	Val	Val	Thr	Ile	Ser	Ile	Pro	Pro	Leu	Arg	Glu	Arg	Arg	Asp
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Phe	Arg	Arg	Asp	Val	Pro	Pro	Leu	Ser	Pro	Asp	Val	Arg	Arg	His	Leu
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210

215

220

<210> 14
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 <213> E. coli

<400> 14

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Lys	Glu	Leu	Val	Ala	Arg	Gly	Leu	His	Ala	Ser	Ser	Ala	Arg	Ser	Glu
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Glu	Ser	Glu	Leu	Phe	Gly	His	Glu	Lys	Gly	Ala	Phe	Thr	Gly	Ala	Asp
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Lys	Arg	Arg	Glu	Gly	Pro	Phe	Val	Glu	Ala	Asp	Gly	Gly	Thr	Cys	Leu
			85					90						95	
Asp	Glu	Ile	Gly	Asp	Ile	Ser	Pro	Met	Met	Gln	Val	Arg	Leu	Leu	Arg
			100					105					110		
Ala	Ile	Gln	Glu	Arg	Glu	Val	Gln	Arg	Val	Gly	Ser	Asn	Gln	Ile	Ile
	115						120					125			
Ser	Val	Asp	Val	Arg	Leu	Ile	Ala	Ala	Thr	His	Arg	Asp	Leu	Ala	Ala
	130						135					140			
Glu	Val	Asn	Ala	Gly	Arg	Phe	Arg	Gln	Asp	Leu	Tyr	Tyr	Arg	Leu	Asn
145				150					155					160	
Val	Val	Ala	Ile	Glu	Val	Pro	Ser	Leu	Arg	Gln	Arg	Arg	Glu	Asp	Ile
			165					170					175		
Pro	Leu	Leu	Ala	Gly	His	Phe	Leu	Gln	Arg	Phe	Ala	Glu	Arg	Asn	Arg
			180					185					190		
Arg	Gly	Lys	Arg	Phe	Tyr	Ala	Pro	Gly	Leu	Asp	Leu	Leu	Ile	His	Tyr
	195						200					205			
Asp	Trp	Pro	Gly	Asn	Ile	Arg	Glu	Leu	Glu	Asn					
	210						215								

<210> 15
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 <212> PRT
 <213> C. crescentus

<400> 15

Val	Val	Arg	Asp	Pro	Ala	Met	Glu	Gln	Val	Ile	Lys	Leu	Ala	Asp	Gln
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Val	Ala	Pro	Ser	Glu	Ala	Ser	Ile	Leu	Ile	Thr	Gly	Glu	Ser	Gly	Ser
		20						25					30		
Gly	Lys	Glu	Val	Met	Ala	Arg	Tyr	Val	His	Gly	Lys	Ser	Arg	Arg	Ala
	35					40						45			
Lys	Ala	Pro	Phe	Ile	Ser	Val	Asn	Cys	Ala	Ala	Ile	Pro	Glu	Asn	Leu
	50					55					60				
Leu	Glu	Ser	Glu	Leu	Phe	Gly	His	Glu	Lys	Gly	Ala	Phe	Thr	Gly	Ala
65				70					75					80	
Met	Ala	Arg	Arg	Ile	Gly	Lys	Phe	Glu	Glu	Ala	Asp	Gly	Gly	Thr	Leu
			85					90						95	

Leu	Leu	Asp	Glu	Ile	Ser	Glu	Met	Asp	Val	Arg	Leu	Gln	Ala	Lys	Leu
			100					105					110		
Leu	Arg	Ala	Ile	Gln	Glu	Arg	Glu	Ile	Asp	Arg	Val	Gly	Gly	Ser	Lys
		115					120					125			
Pro	Val	Lys	Val	Asn	Ile	Arg	Ile	Leu	Ala	Thr	Ser	Asn	Arg	Asp	Leu
		130				135					140				
Ala	Gln	Ala	Val	Lys	Asp	Gly	Thr	Phe	Arg	Glu	Asp	Leu	Leu	Tyr	Arg
145					150					155					160
Leu	Asn	Val	Val	Asn	Leu	Arg	Leu	Pro	Pro	Leu	Arg	Glu	Arg	Pro	Ala
				165				170						175	
Asp	Val	Ile	Ser	Leu	Cys	Glu	Phe	Phe	Val	Lys	Lys	Tyr	Ser	Ala	Ala
		180						185					190		
Asn	Gly	Ile	Glu	Glu	Lys	Pro	Ile	Ser	Ala	Glu	Ala	Lys	Arg	Arg	Leu
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<400> 16															
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Ile	Tyr	Arg	Lys	Leu	Gln	Ala	Trp	Asn	Ser	Lys					
		20					25								

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<400> 17															
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Leu	Thr	Arg	Lys	Leu	Lys	Glu	Leu	Gly	Met	Glu					
		20					25								

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 <212> PRT
 <213> E. coli

<400> 18															
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		20													

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 <212> PRT

<213> C. crescentus

<400> 19

Gly	Asn	Arg	Thr	His	Ala	Ala	Asn	Ile	Leu	Gly	Ile	Ser	Ile	Arg	Thr
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Leu	Arg	Asn	Lys	Leu	Lys	Glu	Tyr	Ser	Asp	Ala					
			20					25							